

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Akihito SHIMAHARA et al.

Application No.: 10/588,236

Confirmation No.: 5420

Filed: (Int'l) January 20, 2005

Art Unit: 2617

For: MOBILE TELEPHONE UNIT WITH
BROADCAST RECEIVING FUNCTION

Examiner: N. Sivji

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under § 41.37(a), this brief is filed more than two months after the Notice of Appeal filed in this case on December 28, 2010, and is in furtherance of said Notice of Appeal. A Petition for Extension of Time accompanies this response.

The fees required under § 41.20(b)(2) are dealt with in the accompanying
TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

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|------|---|
| I. | Real Party In Interest |
| II | Related Appeals and Interferences |
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I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Kyocera Corporation

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

The undersigned is aware of no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 21 claims pending in application.

B. Current Status of Claims

1. Claims canceled: 2
2. Claims withdrawn from consideration but not canceled: none
3. Claims pending: 1 and 3-22
4. Claims allowed: none
5. Claims rejected: 1 and 3-22

C. Claims On Appeal

The claims on appeal are claims 1 and 3-22

IV. STATUS OF AMENDMENTS

Applicant did not file an Amendment After Final Rejection. Claims 1, 3-8 and 10 were amended in a Preliminary Amendment filed August 3, 2006. Claim 2 was cancelled and new claims 14-22 were added at that time.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 is directed to a mobile phone (see Fig. 1 and para. [0016]) including a broadcast receiving unit (see, e.g., element 102 of Fig. 1, and para. [0017]) that receives a broadcast. The mobile phone comprises a storage unit operable to store position information of a base station in correspondence with a receiving frequency of a broadcast station receivable in an area indicated by the position information (see, e.g., element 106 of Fig. 1); and a position information acquisition unit operable to acquire position information of a base station (see para. [0017] and Fig. 1, element 102).

A judgment unit is operable to judge whether the acquired position information of the base station is stored in the storage unit (see paras. [0018]-[0023] and Fig. 4, S404); and an additional recording unit is operable to, when the acquired position information is not stored, attempt

to detect a receiving frequency of a broadcast station having a receiving intensity of no less than a predetermined level within a frequency range defined for an area indicated by the acquired position information (see paras. [0024]-[0026], Fig. 4, S405, Fig. 5, S501 and S503, and Fig. 1, element 106), and additionally record all detected receiving frequencies of broadcast stations in correspondence with the acquired position information in the storage unit (see para. [0024], Fig. 4, S407 and Fig. 1, element 106). A receiving control unit is operable to, in response to a receiving instruction from a user, read the detected receiving frequencies stored in correspondence with the acquired position information from the storage unit, and have the broadcast receiving unit receive a broadcast of a broadcast station at the read receiving frequencies (see, e.g., control unit 105 of Fig. 1, paras. [0026]-[0030] and Figs. 5 and 6).

As discussed in greater detail in Section VII below, it is possible with this structure to receive a broadcast of the broadcast station at the registered receiving frequency, according to an embodiment recited in independent claim 1. As a result, when a user visits an area for the first time for example, a receiving frequency of a broadcast station receivable in the area can be detected and recorded. This provides a specific advantageous effect that when the user visits the area again, the user can easily select a desired broadcast station, for example, among a plurality of broadcast stations receivable in the area, and receive a broadcast of the selected broadcast station.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 3-13 and 15-22 are patentably under 35 U.S.C. §103(a) over Reference 1 (Iwanaga, JP2003-0092375), Reference 2 (Yoshiki, JP08-162909), and Reference 3 (Denso Corp- JP2004-23753), and whether claim 14 is patentable under 35 U.S.C. §103(a) over References 1 to 3, and further in view of Reference 4 (Chang, US2004/0192346).

VII. ARGUMENT

A. Rejection of claims 1, 3-13 and 15-22 under 35 U.S.C. §103(a)

Claims 1, 3-13 and 15-22 stand rejected as being unpatentable over Reference 1 (Iwanaga, JP2003-0092375), Reference 2 (Yoshiki, JP08-162909), and Reference 3 (Denso Corp-

JP2004-23753). The rejections are respectfully traversed and reconsideration is requested. The following is a comparison between embodiments of the present invention and the cited art.

For convenience, independent claim 1 as previously presented is reproduced below:

1. (previously presented): A mobile phone including a broadcast receiving unit that receives a broadcast, comprising:
 - a storage unit operable to store position information of a base station in correspondence with a receiving frequency of a broadcast station receivable in an area indicated by the position information;
 - a position information acquisition unit operable to acquire position information of a base station;
 - a judgment unit operable to judge whether the acquired position information of the base station is stored in the storage unit;
 - an additional recording unit operable to, when the acquired position information is not stored, attempt to detect a receiving frequency of a broadcast station having a receiving intensity of no less than a predetermined level within a frequency range defined for an area indicated by the acquired position information, and additionally record all detected receiving frequencies of broadcast stations in correspondence with the acquired position information in the storage unit; and
 - a receiving control unit operable to, in response to a receiving instruction from a user, read the detected receiving frequencies stored in correspondence with the acquired position information from the storage unit, and have the broadcast receiving unit receive a broadcast of a broadcast station at the read receiving frequencies.

Independent claim 1 is characterized in that a judgment unit is operable to judge whether the acquired position information of the base station is stored in the storage unit; an additional recording unit is operable to, when the acquired position information is not stored, attempt to detect a receiving frequency of a broadcast station having a receiving intensity of no less than a predetermined level within a frequency range defined for an area indicated by the acquired position information, and additionally record all detected receiving frequencies of broadcast stations in

correspondence with the acquired position information the storage unit; and a receiving control unit is operable to, in response to a receiving instruction from a user, read the detected receiving frequencies stored in correspondence with the acquired position information from the storage unit, and have the broadcast receiving unit receive a broadcast of a broadcast station at the read receiving frequencies.

With this structure, according to certain embodiments, when position information of a base station, for example, is not stored in correspondence with a receiving frequency of a broadcast station receivable in an area indicated by acquired position information, an attempt can be performed to detect a receiving frequency of a receivable broadcast station having a receiving intensity of no less than a predetermined level. The detected receiving frequencies of the broadcast stations may be newly recorded in correspondence with the acquired position information. As an exemplary advantage, it is possible to receive a broadcast of the broadcast station at the registered receiving frequency, according to an embodiment recited in independent claim 1.

As a result, when a user visits an area for the first time for example, a receiving frequency of a broadcast station receivable in the area can be detected. Then, all the detected receiving frequencies of the broadcast stations may be newly recorded in a mobile telephone, for example, in correspondence with position information of the area. Accordingly, when the user visits this area again, the receiving frequencies of the broadcast stations receivable in the area have been already recorded in the mobile telephone in correspondence with the position information that indicates the area. This provides a specific advantageous effect that when the user visits the area again, the user can easily select a desired broadcast station, for example, among a plurality of broadcast stations receivable in the area, and receive a broadcast of the selected broadcast station.

The Examiner properly concedes, on page 3 of the Action, that Reference 1 fails to disclose elements corresponding to the “judgment unit”, the “additional recording unit”, and the “receiving control unit” of claim 1. However, the Examiner goes on to contend that Reference 2 discloses these features of claim 1.

Specifically, Reference 2 discloses, in paragraph [0008] of the Specification to which the Examiner refers, a terminal device having a broadcast receiving function that comprises: a position information storage unit (101) operable to store therein position information transmitted from a base station; a broadcast station selection unit (9) operable to select a broadcast station to be received; a frequency storage unit (101, 102, 103) operable to store therein one or more broadcast station frequencies with respect to position, information of each of a plurality of base stations; and a frequency searching unit (8) operable to search for a broadcast station frequency of the selected broadcast station among the one or more broadcast station frequencies stored, in the frequency storage unit, based on the position information stored in the position information storage unit and the selected broadcast station.

Reference 2 further discloses, in paragraph [0010], a reception sensitivity judgment unit (12, 8) operable to judge a reception sensitivity at the broadcast frequency searched for by the frequency searching unit; a position information re-storage unit (101) operable to, when the reception, sensitivity is equal to or less than a predetermined reception sensitivity, re-store therein position information transmitted from the base station; a frequency re-searching unit (8) operable to re-search for a broadcast station frequency of the selected broadcast station among the one or more broadcast station frequencies stored in the frequency storage unit, based on the position information stored in the position information storage unit and the selected broadcast station; and an alignment unit (12) operable to, when the broadcast station frequency that is re-searched for is different from the broadcast station frequency that has been previously searched for, perform alignment using the broadcast station frequency that is re-searched for.

Furthermore, Reference 2 specifically discloses, on pages 37-45 of the Specification, the structure corresponding to the structure described in paragraphs [0008] and [0010].

Furthermore, Reference 2 specifically discloses, on pages 37-45 of the Specification, the structure corresponding to the structure described in paragraphs [0008] and [0010].

The structure disclosed in Reference 2 is based on the assumption that position information of a base station has been stored beforehand in the frequency storage unit. This is clear from the following description on page 36 of the Specification, for example, which states, “when the receiving frequency is low... search is performed based on a correspondence table stored in the frequency registration unit 103 (corresponding to the frequency storage unit)”.

That is, according to the structure disclosed in Reference 2, it is necessary for a manufacturer or a user of the terminal device to register position information of a base station in the frequency storage unit in correspondence with a broadcast station frequency of a broadcast station that is receivable in an area indicated by the position information.

For example, in the case where the manufacturer registers the position information, it is necessary to register beforehand, with respect to each receivable area the user can move to, position information of a base station with a receiving frequency of a broadcast station receivable in the area indicated by the position information. When a mobile terminal having a low memory capacity is used, as the terminal device generally is, the system of Reference 2 would likely cause a memory shortage.

Furthermore, the range of areas where a certain user moves around greatly differs for each user. Although there is little possibility to use data with respect to a receivable area to which the user is unlikely to move, such data needs to be registered in the memory in order to support all users. This leads to wasted memory usage, and it is impossible to efficiently use the memory.

In contrast, according to the embodiments of the present invention as recited in claim 1, the judging unit is operable to judge whether acquired position information of a base station is stored in the storage unit (which is in correspondence with receiving frequencies of broadcast stations receivable in an area indicated by the position information). When it is judged that the position information is not stored, the additional recording unit attempts to detect a receiving frequency of a broadcast station having a receiving intensity of no less than a predetermined level within a frequency range defined for an area indicated by the acquired position information. If a receiving

frequency is detected, the detected receiving frequency is additionally recorded in the storage unit. Therefore, it is possible to record data with respect to only an area to which the user has actually moved. This can prevent waste of the memory without impairing the user's ability to receive a broadcast.

In contrast, according to the embodiments of the present invention as recited in claim 1, the judging unit is operable to judge whether acquired position information of a base station is stored in the storage unit (which is in correspondence with receiving frequencies of broadcast stations receivable in an area indicated by the position information). When it is judged that the position information is not stored, the additional recording unit attempts to detect a receiving frequency of a broadcast station having a receiving intensity of no less than a predetermined level within a frequency range defined for an area indicated by the acquired position information. If a receiving frequency is detected, the detected receiving frequency is additionally recorded in the storage unit. Therefore, it is possible to record data with respect to only an area to which the user has actually moved. This can prevent waste of the memory without impairing the user's ability to receive a broadcast.

Therefore, it is respectfully submitted that Reference 2 fails to teach or suggest the aforementioned features of independent claim 1.

Furthermore, Reference 3 discloses, in paragraphs [0012] to [0014] of the Specification to which the Examiner refers, a history recording unit operable to record a use history of software; and a deleting unit operable to, when software acquired by an external acquisition unit is stored in a memory, partially delete software that has been stored in the memory based on the current capacity of the memory and the use history. However, Reference 3 does not disclose and suggest the foregoing features of independent claim 1, and is not cited as doing such.

In conclusion, it is respectfully submitted that independent claim 1 patentably distinguishes over all of the cited references, alone or in combination. Applicants respectfully request reversal of the Examiner's rejections described above. The pending dependent claims 3-13

and 15-22 inherit the patentability of independent claim 1 and are submitted to be allowable for at least the foregoing reasons.

B. Rejection of claim 14 under 35 U.S.C. §103(a)

Claim 14 stands rejected as being unpatentable over References 1 to 3, and further in view of Reference 4 (Chang, US2004/0192346). However, dependent claim 14 inherits the patentability of independent claim 1 and, thus, should be similarly allowable.

It is noted that Reference 4 (cited in rejecting claim 14) does not disclose and suggest elements corresponding to the aforementioned structures of claim 1, and does not cure the deficiencies of References 1-3 described above.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner's rejections should be withdrawn.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

IX. EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

X. RELATED PROCEEDINGS

No related proceedings are referenced in II. above, or copies of decisions in related proceedings are not provided, hence no Appendix is included.

Dated: July 28, 2011

Respectfully submitted,

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APPENDIX A**Claims Involved in the Appeal of Application Serial No. 10/588,236**

1. (previously presented): A mobile phone including a broadcast receiving unit that receives a broadcast, comprising:

a storage unit operable to store position information of a base station in correspondence with a receiving frequency of a broadcast station receivable in an area indicated by the position information;

a position information acquisition unit operable to acquire position information of a base station;

a judgment unit operable to judge whether the acquired position information of the base station is stored in the storage unit;

an additional recording unit operable to, when the acquired position information is not stored, attempt to detect a receiving frequency of a broadcast station having a receiving intensity of no less than a predetermined level within a frequency range defined for an area indicated by the acquired position information, and additionally record all detected receiving frequencies of broadcast stations in correspondence with the acquired position information in the storage unit; and

a receiving control unit operable to, in response to a receiving instruction from a user, read the detected receiving frequencies stored in correspondence with the acquired position information from the storage unit, and have the broadcast receiving unit receive a broadcast of a broadcast station at the read receiving frequencies.

2. (canceled)

3. (previously presented): The mobile phone of Claim 1, including:

a table acquisition unit operable to acquire frequency range correspondence table that shows a correspondence between area information that identifies a country or an area and a frequency range receivable in the identified country or area; and

a specification receiving unit operable to receive a specification of a piece of area information, wherein

the additional recording unit attempts to detect a receiving frequency of a broadcast station having a receiving intensity of no less than the predetermined level within the frequency range corresponding to the specified piece of area information.

4. (previously presented): The mobile phone of Claim 3, wherein
the frequency range correspondence table shows a correspondence among the area information, the frequency range, and an audio deemphasis amount in the identified country or area,
the mobile phone includes an audio output unit operable to output audio, and
the audio output unit outputs the audio by deemphasizing an audio signal of the broadcast to be received broadcast based on the audio deemphasis amount corresponding to the specified area information.

5. (previously presented): The mobile phone of Claim 1, further comprising:
a reading time recording unit operable to, each time the receiving frequency is read by the receiving control unit, record a last reading time of the receiving frequency in correspondence with the position information corresponding to the receiving frequency in the storage unit;
a monitoring unit operable to monitor the last reading time corresponding to the position information at a constant time interval; and
a recording deletion unit operable to delete the recorded receiving frequency corresponding to the position information from the storage unit for which no less than a predetermined time period has passed since the last reading time of the receiving frequency.

6. (previously presented): The mobile phone of Claim 1, further comprising:
a number of read counts recording unit operable to, each time the receiving frequency is read by the receiving control unit, update a number of read counts of the receiving frequency, and record the updated number of read counts in correspondence with the position information corresponding to the read receiving frequency in the storage unit;

a monitoring unit operable to monitor the number of read counts corresponding to the position information within a predetermined time period; and

a recording deletion unit operable to, when the monitored number of read counts is less than a number of predetermined counts, delete the recorded receiving frequency corresponding to the position information corresponding to the number of read counts from the storage unit.

7. (previously presented): The mobile phone of Claim 5, wherein the monitoring unit monitors whether a memory capacity of the storage unit is full, and the recording deletion unit, only when the memory capacity is full, deletes the recorded receiving frequency from the storage unit.

8. (previously amended): The mobile phone of Claim 1, wherein the position information is position information of a call area to which the base station belongs.

9. (original): The mobile phone of Claim 7, wherein the position information is position information of a cal area to which the base station belongs.

10. (previously presented): The mobile phone of any of Claim 1, wherein the broadcast is a television broadcast or a radio broadcast.

11. (original): The mobile phone of Claim 7, wherein the broadcast is a television broadcast or a radio broadcast.

12. (original): The mobile phone of Claim 8, wherein the broadcast is a television broadcast or a radio broadcast.

13. (original): The mobile phone of Claim 9, wherein the broadcast is a television broadcast or a radio broadcast.

14. (previously presented): The mobile phone of Claim 6, wherein the monitoring unit monitors whether a memory capacity of the storage unit is full, and the recording deletion unit, only when the memory capacity is full, deletes the recorded receiving frequency from the storage unit.

15. (previously presented): The mobile phone of Claim 3, wherein the position information is position information of a call area to which the base station belongs.

16. (previously presented): The mobile phone of Claim 4, wherein the position information is position information of a call area to which the base station belongs.

17. (previously presented): The mobile phone of Claim 5, wherein the position information is position information of a call area to which the base station belongs.

18. (previously presented): The mobile phone of Claim 6, wherein the position information is position information of a call area to which the base station belongs.

19. (previously presented): The mobile phone of Claim 3, wherein the position information is position information of a call area to which the base station belongs.

20. (previously presented): The mobile phone of Claim 4, wherein the broadcast is a television broadcast or a radio broadcast.

21. (previously presented): The mobile phone of Claim 5, wherein the broadcast is a television broadcast or a radio broadcast.

22. (previously presented): The mobile phone of Claim 6, wherein the broadcast is a television broadcast or a radio broadcast.